



**IAEA**

International Atomic Energy Agency  
*Atoms for Peace and Development*

**Technical Meeting on the  
INPRO Collaborative Project “Case Study on  
Nuclear Hydrogen Systems: Drivers and  
Institutional, Economic and Legal Impediments”  
(INPRO Hydrogen Study)**

**IAEA Headquarters, Vienna, Austria**  
and virtual participation via Cisco Webex

**14–17 May 2024**

**Ref. No.: EVT2104210**

**Information Sheet**

**Introduction**

The International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO), established in 2000 as an IAEA Key Programme, is a membership-based project that supports its members on their long-term planning and collaboration on innovations in reactors, fuel cycles and institutional approaches that will promote the sustainable development of nuclear energy. To support interested Member States INPRO explores legal issues and institutional arrangements that play an important role in the development of sustainable nuclear energy systems, such as deployment of transportable factory fuelled nuclear power plants (NPP) and fusion facilities.

Institutional innovations may facilitate developing and deploying symbiotic nuclear-hydrogen technologies for future energy needs. The objective of the INPRO Hydrogen Study is to support the developers of nuclear-hydrogen systems, future users including embarking countries in their effort to accelerate the technology development by identification of possible long-term sustainability gaps in hydrogen market penetration.

The project aims to create a cross cutting community to address common issues in the deployment of hydrogen-based and renewable energy technologies within the next decades. Member States will benefit by this collaborative project in planning, licensing, constructing, and operating nuclear-hydrogen energy systems. The outcome of the project will be an IAEA TECDOC. The interdisciplinary study attracted the attention of 22 experts from 11 institutions of 6 member states (MSs) and one international organization (ITER), as well as 28 IAEA experts from 9 sections/divisions.

## **Objectives**

The purpose of the event is to:

- 1.) Review the current status of legal and institutional aspects of hydrogen production by nuclear power;
- 2.) Review and approve the Terms of Reference (ToR) and scope of work for the INPRO collaborative project entitled “Case Study on Nuclear Hydrogen Systems: Drivers and Institutional, Economic and Legal Impediments”; and
- 3.) Present and discuss the progress of ongoing studies; and define new studies to be performed within the project.

## **Target Audience**

The target audience are experts in INPRO MSs planning to license, construct, and operate prototypes or demonstrations of integrated nuclear-hydrogen energy systems within the next decades. Additionally, the event will be of interest to organisations in INPRO MSs interested in performing studies by application of the INPRO methodology for the assessment of sustainability of nuclear energy systems.

## **Working Language(s)**

English is the working language of the event.

## Expected Outputs

The following is a list of outputs from the event which will be direct contributions to the INPRO Hydrogen Study:

1. Updated content for the INPRO Hydrogen Study report based on:
  - Presentations and contributions from participants;
  - Agreed key definitions, terms and assumptions for the INPRO Hydrogen Study report; and
  - Identified key issues and recommendations for analysis using INPRO or other tools;
2. Approved ToR;
3. Drafted meeting report:
  - Identified responsibilities for completing the Study including efforts by other IAEA sections, and
  - updated schedule through 2024

## Structure

The structure of the event is designed to encourage dialogue and discussion. Project leads for each section of the study will present their status and needs for completing the study, along with current challenges for deployment of nuclear hydrogen energy systems. IAEA sections will present an understanding of the current position of the Agency, and event participants will make presentations that address specific areas of the Study. The event will include discussion to help resolve challenges and identify gaps in sustainability and deployment of nuclear hydrogen energy systems. The main goal is to document current work and identify contributions needed to complete the INPRO Hydrogen Study.

## Topics

The following are a list of the sections in the INPRO Hydrogen Study report.

- I. Selected case studies
- II. Long-term sustainability issues of prospective deployment of nuclear hydrogen facilities
- III. Main drivers and impediments to nuclear hydrogen implementation
- IV. Legal issues and challenges, international conventions and instruments, national legislations and liability
- V. Nuclear hydrogen safety and security issues
- VI. Comprehensive infrastructure issues
- VII. Findings and gaps

## Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of invited organizations.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<https://intouchplus.iaea.org>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by **5 March 2024**, following the registration procedure in InTouch+:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):
  - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
  - Persons without an existing NUCLEUS account can register [here](#).
2. Once signed in, prospective participants can use the InTouch+ platform to:
  - Complete or update their personal details under ‘Complete Profile’ and upload the relevant supporting documents;
  - Search for the relevant event under the ‘My Eligible Events’ tab;
  - Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating Authority’ (if an invited organization is not listed, please contact [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org));
  - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
  - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
  - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **5 March 2024**.

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency’s Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA’s scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA’s mandate. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

## Papers and Presentations

The IAEA encourages participants to provide their contributions prior to the event, give presentations on their considerations, findings and interim conclusions made in the framework of the study. The expectation is participants will deliver positions of their respective national authorities on nuclear hydrogen programs and on their progress on the INPRO Hydrogen Study.

Presentations should be sent electronically to Mr Mikhail Khoroshev (Email: [m.khoroshev@iaea.org](mailto:m.khoroshev@iaea.org)), the Scientific Secretary of the event not later than **6 May 2024**.

Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

## Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made, together with the submission of the application, by **5 March 2024**.

## Venue

The event will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page: [www.iaea.org/events](http://www.iaea.org/events).

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

## Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

## **Additional Information**

Current activities and work related to the scope of the INPRO Hydrogen Study carried out by the IAEA sections and divisions will be presented by the Office of Legal Affairs (OLA), Nuclear Power Technology Development Section (NPTDS), Nuclear Knowledge Management Section (NKMS), Nuclear Safety of Nuclear Installation (NSNI), Division of Nuclear Fuel Cycle and Waste Technology (NEFW), International Project on Innovative Nuclear Reactors and Fuel Cycles Section (INPRO), and other departments interested in nuclear hydrogen energy.

## **IAEA Contacts**

### **Scientific Secretary:**

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretaries.

## **Event Web Page**

Please visit the following IAEA web page regularly for new information regarding this event:

[www.iaea.org/events/EVT2104210](http://www.iaea.org/events/EVT2104210)

Technical Meeting workspace on the INPRO Collaboration platform:

[INPRO Hydrogen Study - Home \(iaea.org\)](http://www.iaea.org/INPRO/HydrogenStudy)